REMARKS

The Applicants would like to thank Examiner Kuo Woo for the courtesies extended to the Applicants' representative during the telephonic interview of November 10, 2010. During the interview, the claim rejections were discussed with respect to the cited references.

The Office Action of August 3, 2010, has been reviewed and the Examiner's comments carefully considered. Claims 1-21 and 25-27 are pending in this application, and claims 1, 20, and 25 are in independent form.

A clean list of the claims is included to address the Examiners objection for informalities. The claims listed herewith have been properly identified as per the Examiners objection.

Claims 1-21 and 25-27 stand rejected under 35 U.S.C. § 103(a) for obviousness over United Stated Patent No. 7,395,077 to Wilson et al. (hereinafter "the Wilson patent") in view of United States Patent Application Publication No. 2006/0148495 to Wilson (hereinafter "the Wilson publication").

The Wilson patent is directed to a method of controlling delivery of SMS messages. More specifically, the Wilson patent describes a method and apparatus utilizing SMS routers to facilitate control over delivery of text messages to recipients. The Wilson patent further describes a router in the recipient's home network, intercepting routing queries before they reach an home location register (HLR) in order to determine if the message is for a recipient who has selected a special delivery mode. The router responds to the query by directing the originating network to send the message directly to the SMS router of the recipient's home network. (Col 6, ll. 10-13).

The present invention of independent claim 1 of the present application provides a method of managing SMS messages. The method of claim 1 transparently intercepts an inbound home location register (HLR) query associated with a message delivery attempt and examines the query for invocation of a smart service. The query examination of the present invention specifically includes steps for routing the HLR query onward to an HLR and generating a response to the HLR query in the HLR, the HLR query response including a mobile network location address of said second subscriber. In the present Office Action, the Examiner has referred to the Wilson patent for teaching each of these steps. (See Office Action, page 4, paragraph 1). However, the Applicants respectfully submit that the Wilson

patent only describes a routing query "made" to an HLR, not actually routing it to the HLR as required in the present application, since the query is never received by an HLR in the Wilson patent. In the Wilson patent before the query can arrive at the HLR, it is "caused to pass" through an SMS router and never reaches the HLR. (See Wilson patent, Col. 6, ll. 8-9). At that point it is operated on in accordance with the method described in the Wilson patent, clearly never reaching the HLR. (See Wilson patent, FIG. 2). Therefore, the Wilson patent fails to describe routing a query to an HLR. The Wilson patent goes on to describe the SMS router responding to the query. (See Wilson patent, Col. 6, ll. 12-13). The Wilson patent does not describe routing an HLR query to an HLR and there is no teaching or suggestion of an HLR responding to an HLR query in Wilson. In contrast, the present invention as claimed in independent claim 1 of the present application clearly requires both of these steps; 1) routing the HLR query onward to an HLR and 2) generating a response to the HLR query in the HLR. Accordingly, the Wilson patent does not teach or suggest the presently claimed invention.

Claim 1 further requires replacing in a smart services control node the mobile network location address of a second subscriber in an HLR query response with the network location address of the smart services control node, which is not disclosed or suggested in the Wilson patent. First, clearly the Wilson patent does not address replacement in an HLR query response by changing the address. The Wilson patent describes only redirection of an HLR query. The Examiner states that replacing the HLR query is obvious over the Wilson patent's redirection, however, further support for this position is not present. If the Examiner remains firm in his position, Applicants respectfully submit that a reasoned explanation is needed, explaining why aspects of the step would be obvious, in order to advance prosecution of this application. Without such further explanation of the applicability to the facts of the case at hand, simply stating the principal is not sufficient to establish a *prima facie* case of obviousness.

Applicants submit that one skilled in the art would not have found it obvious to replace an HLR query response address in view of redirection. This difference between the presently claimed invention and the disclosure of the Wilson patent is a key element that provides the advantage of maintaining visibility of the true status of the destination subscriber. To the extent the Wilson patent provides a system by which special delivery settings may be applied to messages, it fails to solve the essential problem addressed in the

present application, namely, applying smart services to messages between networks while ensuring end-to-end visibility of the true status of the destination subscriber. To solve this problem, it is crucial that the HLR remains involved in the message flow, in order to maintain an end-to-end transaction with the HLR and end-to-end visibility of the true status of the destination subscriber. This problem is not solved in the Wilson patent. In fact, the Wilson patent teaches away from involving the HLR patent, the SMS router responding on behalf of the HLR. (See Wilson patent, Col. 4, ll. 43-45). Therefore, the Wilson patent provides no motivation to one skilled in the art to modify the teaching so as to arrive at the claimed invention. Accordingly, Applicants respectfully submit that the claims of the presently claimed invention are neither taught nor suggested by the Wilson patent. In addition, none of the other cited documents teaches or suggests the claims. Applicants respectfully submit that the claims are not obvious over the prior art.

Further to this point, it is true that the present invention and the Wilson system are both generally concerned with routing messages to which smart services are to be applied to different locations. However, even if the skilled artisan had tried using redirection instead of replacing the address in the query as in the invention of claim 1 of the present application, the advantages of preserving an end-to-end transaction with HLR would be lost. Applicants request that the Examiner consider these factors of non-obviousness. Accordingly, Applicants respectfully submit that the Wilson patent and the Wilson publication fail to describe the method of managing SMS messages as recited in independent claim 1 of the present application.

For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of independent claim 1 by the cited prior art. Claims 2-7, 11-12 depend from and add further limitations to independent claim 1 and are believed to be patentable for the same reasons.

Claim 8 depends from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. Claim 8 requires the SMS message is routed to the real network location address stored in the smart services control node previously obtained from the HLR query response. The Wilson publication discloses "after any processing, the SMS Router 16 may query the HLR 28 to obtain delivery routing and then the message may be onward delivered". Therefore, the routing query is made to the HLR after SMS Router (act SSNC) processing. The Wilson publication fails to disclose

routing to a real address stored within a smart services control node. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 8 by the cited prior art.

Claim 9 depends from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. Claim 9 requires terminating the SMS message delivery attempt in the smart services control node when the smart service requires that the SMS message is not delivered. The Wilson publication fails to teach or suggest logic where applications can terminate a message. The cited passage only addresses the unavailable recipients. This does not address termination of a message. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 9 by the cited prior art.

Claim 10 depends from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. Claim 10 requires terminating in the second operator network an SMS message delivery attempt when the condition of the intercepted delivery attempt indicates that the SMS message originates from a barred originating entity. The Wilson publication describes a method for exceptions when processing messages through a text template engine. In the cited passage, logic is described to determine if there is no match to either user inputted text or a destination address, if there is then an error message is sent. In this case, a system response is sent informing the user that the message is not understood. This does not suggest blocking a barred address as in the present invention recited in claim 10 of the present application. The Wilson publication fails to teach or suggest logic where applications can be barred based on the originating entity. The cited passage only addresses the unavailable recipients. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 10 by the cited prior art.

Claim 13 depends from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. In addition, claim 13 requires generating a unique identifier for an SMS message at a smart services SMS control node. The Wilson publication fails to teach or suggest such an identifier. The Wilson publication, as cited by the Examiner, does describe using personal alphanumeric identities as an alias for their MSISDN. However, these identities are user based not message based, and not providing a unique identifier of messages. The purpose of the method of the Wilson

publication is to provide users an identity based address for other users as opposed to simply using a telephone number. (See the Wilson publication, paragraph [0161]). The Wilson publication fails to teach or suggest unique identifiers for messages.

Furthermore, since the Wilson publication fails to suggest generating a unique ID for each SMS message, Applicants further submit that claim 13 is not obvious over the Wilson publication. The technical effect of this difference is that it allows detection of a message retry attempt so that smart services are only applied once to each SMS message. The objective technical problem solved by the claimed invention is, therefore, how to allow detection of a message retry attempt so as to avoid repeat application of smart services to a single SMS message. Claim 13 solves this problem by generating a unique identifier for said SMS message at the smart services SMS control node. The Wilson publication is completely unconcerned with retry handling or detection of retry attempts and does not address how such retry handling could be facilitated. The Wilson publication fails to teach or suggest the claimed solution to the problem. The skilled artisan is, therefore, provided with no motivation that would lead him to modify the teaching of the Wilson publication so as to arrive at the claimed invention. Therefore, claim 13 is patentable over the Wilson publication. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 13 by the cited prior art.

Claim 14 depends from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. Claim 14 requires generating a unique identifier for the SMS message at the smart services SMS control node, wherein the unique identifier is generated from one or more of the following SMS message parameters: originating address, destination address, message fragment number, SMSC address, or SMS centre timestamp. The Examiner cites the Wilson publication, specifically, stating the handset transpose the source address and destination address and delivers the reply message to a virtual mobile number. The Wilson publication describes using a virtual mobile number as the CLI instead of a real address like an e-mail address or host address to facilitate the recipient sending the reply back to the host application. Regarding the Wilson publication, it is clear that different messages from the same sender have the same virtual mobile number identity. In contrast, the invention as recited in claim 14 of the present application requires each message, even from the same sender, have its own unique generated message ID. The Wilson publication fails to teach or suggest generating a unique identifier. For the foregoing

reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 14 by the cited prior art.

Claim 15 depends from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. In addition, claim 15 requires generating a unique identifier for said SMS message at the smart services SMS control node and storing the unique identifier in a storage memory of the smart services control node. The Wilson publication fails to teach or suggest such an identifier. The Wilson publication, as cited by the Examiner, does describe using personal alphanumeric identities as an alias for their MSISDN. However, these identities are user based, not message based, and does not provide a unique identifier of messages. The purpose of the method of the Wilson publication is to provide users a identity based address for other users as opposed to simply using a telephone number. (See the Wilson publication, paragraph [0161]). The Wilson publication fails to teach or suggest unique identifiers for messages. In addition, Applicant believes the Wilson publication does not address the storage of unique identifiers. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 15 by the cited prior art.

Claim 16 depends indirectly from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. In addition, claim 16 requires comparing the generated unique identifier with unique identifiers for each SMS message delivery attempt processed by the smart services SMS node for detecting a subsequent attempt of an SMS message from a remote SMSC after the first delivery attempt. The Wilson publication fails to teach or suggest detecting subsequent attempts. The Wilson publication, as cited by the Examiner, describes a method for voice redirection based on embedded HLR function inside virtual mobile equipment. The Wilson publication fails to teach or suggest the limitations of claim 16. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 16 by the cited prior art.

Claim 17 depends indirectly from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. In addition, claim 17 requires comparing the generated unique identifier with unique identifiers for each SMS message delivery attempt processed by the smart services SMS node for detecting a subsequent attempt of an SMS message from a remote SMSC after the first delivery attempt, wherein only unique identifiers are stored in the storage memory for retry SMS delivery attempts for

comparison and wherein the retry SMS delivery attempt is routed onwards by the smart services control node to the real network location address of the subscriber after the comparison. The invention of claim 17 solves the problem of reattempts of the same message by not selecting the same application. The Wilson publication fails to teach or suggest a solution to the problem that reattempts will have the same attributes. The Wilson publication, as cited by the Examiner, describes a method where reattempts will select the same application. The Wilson publication fails to teach or suggest the limitations of claim 17. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 17 by the cited prior art.

Claim 18 depends indirectly from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. In addition, claim 18 requires comparing the generated unique identifier with unique identifiers for each SMS message delivery attempt processed by the smart services SMS node for detecting a subsequent attempt of an SMS message from a remote SMSC after the first delivery attempt, wherein only unique identifiers are stored in the storage memory for retry SMS delivery attempts for comparison and wherein the retry SMS delivery attempt is routed onwards by the smart services control node to the real network location address of the subscriber after the comparison and the onward routing is conditionally based on a service indicator associated with the smart services control node. The invention of claim 18, as discussed hereinabove with regards to claim 17 solves the problem of reattempts of the same message by not selecting the same application. The Wilson publication fails to teach or suggest a solution to the problem that reattempts will have the same attributes. The Wilson publication, as cited by the Examiner, describes a method where reattempts will select the same application. The Wilson publication fails to teach or suggest the limitations of claim 18. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 18 by the cited prior art.

Claim 19 depends indirectly from and adds further limitations to independent claim 1 and is believed to be patentable for the same reasons. In addition, claim 19 requires generating a database of unique identifiers in the storage memory and deleting the stored unique identifiers after a preset period of time. The Wilson publication, as cited by the Examiner, refers to a database which the operator can update and maintain. As described, the Wilson publication is referring to a network name server database which provides a

translation between the user selected alphanumeric ID of an application and network addressing details of the application. This is contrasted with a database of unique identifiers used to identify messages uniquely, where a unique identifier is deleted after a set period and therefore, the message is no longer uniquely identified in the database. The Wilson publication fails to teach or suggest each limitation of claim 19. For the foregoing reasons, Applicants believe there is no teaching or suggestion of the subject matter of claim 19 by the cited prior art.

Further, Applicants submit that independent claims 20 and 25 are not anticipated by the Wilson patent for the reasons stated hereinabove. Reconsideration of the rejection of independent claims 20 and 25 is respectfully requested. Claim 27 depends directly or indirectly from and adds further limitations to independent claim 20 and is believed to be allowable for the same reasons. Claim 26 depends directly from and adds further limitation to independent claim 25 and is believed to be allowable for at least the reasons discussed hereinabove in connection with claim 25.

For all of the foregoing reasons, Applicants submit that claims 1-21 and 25-27 are patentable over the cited prior art and in condition for allowance. Reconsideration of the rejections and allowance of the pending claims 1-21 and 25-27 are respectfully requested. To the extent that the Examiner maintains his rejections in view of the arguments and discussions presented above, Applicants respectfully request an interview with the Examiner to discuss this matter, Applicants' position, and to move this case towards allowance.

Respectfully submitted,

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